

Appl. No. 09/408,943
Amendment and/or Response
Reply to Office action of 24 February 2004

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REMARKS

Claims 1-8 are pending in this application.

The applicant respectfully requests the admittance of this amendment, to place the claims in a better condition for allowance or appeal. This amendment further refines the claimed updating of an axis of a first image to derive another image for 3-D perception by a ratio of a displacement value (dx) and a homogeneity value (w). The applicant respectfully suggests that this amendment adds no new matter, and does not require an additional search, because the original claims included the limitation that the updating was based on the displacement value and the homogeneity value, and the specification recites that the updating of the first image axis is by an amount equal to $k \cdot dx/w$.

The Office action rejects:

claims 1, 2, 5, and 6 under 35 U.S.C. 103(a) over Trika et al. (USP 6,630,931, hereinafter Trika), the admitted prior art, and Bekaert et al. ("Viewing in 3D", hereinafter Bekaert);

claim 3 under 35 U.S.C. 103(a) over Trika, the admitted prior art, Bekaert, and Gray III et al. (USP 5,856,829, hereinafter Gray);

claim 4 under 35 U.S.C. 103(a) over Trika, the admitted prior art, Bekaert, and Woodgate et al. (USP 5,808,792, hereinafter Woodgate);

claim 7 under 35 U.S.C. 103(a) over Trika, the admitted prior art, Bekaert, and Nelson et al. (USP 6,014,144, hereinafter Nelson); and

claim 8 under 35 U.S.C. 103(a) over Trika, the admitted prior art, Bekaert, and Halle ("Autostereoscopic Displays and Computer Graphics").

The applicant respectfully traverses these rejections in view of amended claims 1 and 6.

In each of the independent claims 1 and 6, the applicant specifically claims the determination of multiple viewpoint images by updating an axis of a first image by an amount equal to $k \cdot dx/w$, where k is constant, w is a homogeneity value, and dx is a displacement value; the first image being obtained from a transformation from a 3D scene into vertex positions in a frustum viewing region.

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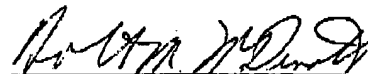
The Office action relies upon Trika for teaching the updating of the first image based on a homogeneity value and a displacement along a single axis. In response to the applicant's prior assertion that Trika does not teach updating a first image based on a homogeneity value and a displacement along a single axis, and that Trika teaches the generation of a right image from a left image using the given equations 10, 11, and 12 (Trika, column 5, line 53 through column 6, line 25), the Examiner notes that one of the terms in equation 10 is based on equation 5 which includes a homogeneity value (w), and characterizes the term $(K1 + K2)$ as a displacement value. The applicant thanks the Examiner for this clarification of the rejections based on Trika.

The applicant teaches a simplified method of generating alternative views for 3-D imaging by offsetting the axis of a first image using only a ratio ($k \cdot dx/w$) of a displacement value (dx) and a homogeneity value (w). Trika teaches a method of generating alternative views by offsetting the axis of a first image using a complex set of equations (equation 10, which uses equations 9, 11, and 12; equation 9 using equation 5). To clarify the distinction from Trika, claims 1 and 6 are amended herein to recite the specific value used to update the axis of the first image to derive the alternative views.

Because Trika does not teach the generation of alternative views for 3-D imaging by offsetting an axis of a first image by an amount equal to $k \cdot dx/w$, the applicant respectfully requests the Examiner's reconsideration of the rejection of each of the claims over Trika.

In view of the foregoing, the applicant respectfully requests that the Examiner withdraw the rejections of record, allow all the pending claims, and find the present application to be in condition for allowance. If any points remain in issue that may best be resolved through a personal or telephonic interview, the Examiner is respectfully requested to contact the undersigned at the telephone number listed below.

Respectfully submitted,


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